CLAIMS

1. A method of detecting the location of an interface between phases, comprising:

introducing a reaction mixture into a vessel wherein the reaction mixture is the product of an at least two phase interfacial reaction, and a difference in densities between at least two of the phases is less than or equal to about 1 g/cc;

separating the reaction mixture into the phases with an interface located therebetween;

measuring electrical inductance of the reaction mixture at different latitudinal locations; and

determining the location of the interface.

- 2. A method according to Claim 1, wherein the vessel is a plate decanter.
- 3. A method according to Claim 1, wherein the vessel is a coalescer decanter.
- 4. A method according to Claim 1, wherein the difference in densities is less than or equal to about 0.5 g/cc.
- 5. A method according to Claim 4, wherein the difference in densities is less than or equal to about 0.1 g/cc.

6. A method of detecting the location of an interface between two phases, comprising:

introducing a reaction mixture into a vessel wherein the reaction mixture is the product of a two phase interfacial reaction for the preparation of polycarbonate;

separating the reaction mixture into an organic phase and an aqueous phase with an interface located therebetween;

measuring electrical inductance of the reaction mixture at different latitudinal locations; and

determining the location of the interface.

- 7. A method according to Claim 6, wherein the vessel is a plate decanter.
- 8. A method according to Claim 7, wherein the vessel is a coalescer decanter.